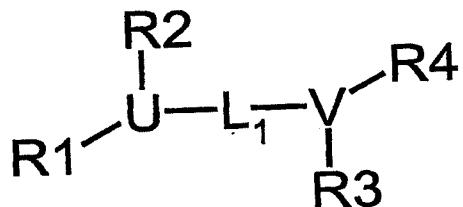


Amendment to the Claims

1. (Withdrawn) A method for preventing or treating anthrax infections by inhibiting Anthrax Lethal Factor activity comprising administering a compound of the formula:



wherein **U** and **V** are, independently, C, N, or C(CH<sub>3</sub>), **L**<sub>1</sub> is a linker and **R**<sub>1</sub>, **R**<sub>2</sub>, **R**<sub>3</sub> and **R**<sub>4</sub> are each independently selected substituent groups, as follows:

**R**<sub>1</sub> is Z(CHR<sub>5</sub>)<sub>n</sub>Y where n is 0 to 4,

**Z** is a bond, S, CO, O, SO, SO<sub>2</sub>, NH, NR<sub>11</sub>, SO<sub>2</sub>NR<sub>11</sub>, NR<sub>11</sub>SO<sub>2</sub>, 1,2-phenylene, 1,3-phenylene, 1,4-phenylene, 1,2-cyclohexylidene;

**Y** is a group known to bind to zinc, including CONR<sub>11</sub>OH, COOH, SH, ArSH, NHCOCH<sub>2</sub>SH, 2-hydroxybenzoate (linked at the 3,4,5, or 6-position), 2-hydroxypyridinecarboxylate (linked at the 3,4,5, or 6-position, with the ring nitrogen at any unsubstituted position), CF<sub>3</sub>P=O(OH)<sub>2</sub>, C(CH<sub>3</sub>)=NOCH<sub>2</sub>COOH, C(CH<sub>2</sub>OH)=NOCH<sub>2</sub>COOH, NHCO(CHR<sub>11</sub>)<sub>m</sub>SH (where m = 1 to 4), PO(OH)<sub>2</sub>, PO(R<sub>11</sub>)OH, SO<sub>2</sub>NR<sub>11</sub>OH, or NH(OH)COR<sub>11</sub>, or is derivatized to form a prodrug that is capable of undergoing conversion to a zinc-binding moiety,

**R**<sub>5</sub> and **R**<sub>11</sub> are, independently, H, CH<sub>3</sub>, amino, hydroxy, alkoxy, alkylthio, alkyl (C<sub>2</sub>-C<sub>10</sub>), branched alkyl (C<sub>3</sub>-C<sub>10</sub>), alkylthio (C<sub>1</sub>-C<sub>7</sub>), alkylthioalkyl (C<sub>2</sub>-C<sub>8</sub>), arylthio, (C<sub>2</sub>-C<sub>10</sub>)

alkylamino(C1-C7), amino, arylamino, aryl, heteroaryl, arylalkyl, heterarylalkyl, arylalkenyl, heterarylalkenyl, arylalkynyl, or heterarylalkynyl,

and where R1 can be further substituted with one or more of the following: NH<sub>2</sub>, OH, halogen, alkyl, CONH<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, CN, NO<sub>2</sub>, NR<sub>6</sub>R<sub>7</sub> where R<sub>6</sub> and R<sub>7</sub> are H or alkyl and optionally form a ring, or R<sub>5</sub> can form a ring with R<sub>2</sub> or with R<sub>11</sub>;

R<sub>2</sub> is H, isobutyl, n-butyl, pentyl, methyl, alkyl (C1-C10), branched alkyl (C3-C10), cycloalkyl, cycloalkyimethyl (C3-C9 cycle), Ar(CH<sub>2</sub>)n (where n is 0 to 4, Ar is phenyl, aryl, heteroaryl), phenethyl, arylalkenyl, heterarylalkenyl, arylalkynyl, heterarylalkynyl, alkenyl (C2-C8), alkynyl (C2-C8), pentafluorophenoxyethyl, pentafluorophenylmethyl, cycloalkenyl (C4-C10), alkylthio, arylthio, alkylamino, arylamino, aryl, dichlorophenyl, or R<sub>2</sub> can form a ring with R<sub>5</sub>, R<sub>11</sub>, L<sub>1</sub>, or R<sub>3</sub>, and R<sub>2</sub>, R<sub>5</sub> and R<sub>11</sub> can be substituted with one or more of the following: NH<sub>2</sub>, OH, halogen, alkyl, CF<sub>3</sub>, CF<sub>3</sub>O, CF<sub>3</sub>S, alkoxy, alkylthio, SO<sub>2</sub>alkyl (C1-C4), CONH<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, CN, NO<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, or NR<sub>6</sub>R<sub>7</sub> where R<sub>6</sub> and R<sub>7</sub> are H or alkyl and can form a ring;

R<sub>3</sub> is H, phenethyl, alkyl (C1-C10), branched alkyl (C1-C10), aryl, phenyl substituted with aryl or heteroaryl at the 2-, 3-, or 4-positions, benzyloxy, pyrrolyl substituted with 1-2 aryl groups, 2-aryl-1,3,4 thiadiazolyl, heteroaryl (including thiophenyl), -L<sub>2</sub>Ar where Ar includes 1-naphthyl, 2-naphthyl, 4-phenylphenyl, 5-(2-thienyl)-2-thienyl, 4-(3'-methoxyphenyl)phenyl, 4-(4'-methoxyphenyl)phenyl, 3-indolyl, phenyl, t-butyl, indolyl 3-phenylphenyl, indolyl, 2,3-dimethyl-5-indolyl, benzothiophenyl, 4-(1,2,3-thiadiazol-4-yl)phenyl, 4-(2-thienyl)phenyl, 5-(2-pyridyl)-2-thienyl, 1-(2-naphthyl)vinylaminoalkyl, N-hydroxybenzamidin-4-yl, 2-methylcarbazol-3-yl, 2-ethylcarbazol-3-yl, aryl or heteroaryl and L<sub>2</sub> is a linker chosen from the following, in both orientations: bond, CH<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>, CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CONHCH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CONHCH<sub>2</sub>CH<sub>2</sub>, 1,1 vinylidene, 1,2-vinylidene, CO, CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>, (CH<sub>2</sub>)<sub>q</sub> where q = 3 to 7, (CHR<sub>9</sub>)<sub>r</sub> where r = 1 to 7 and R<sub>9</sub> is independently H, alkyl (C1-C10), branched alkyl (C3-C10), cycloalkyl (C3-C10), cycloalkylalkyl (C4-C14), alkyl thio, amino, alkyl amino, dialkylamino,

( $\text{CHR9}_s\text{X}\text{CHR9}_t$ ) where  $s + t = 0$  to  $8$ ,  $\text{X}$  is  $\text{O}$ ,  $\text{S}$ ,  $\text{CO}$ ,  $\text{SO}$ ,  $\text{SO}_2$ ,  $\text{NH}$ ,  $\text{CONH}$ ,  $\text{NHCO}$ ,  $\text{SO}_2\text{NH}$ ,  $\text{NHSO}_2$ , or  $\text{NR9}$  and  $\text{R9}$  is independently  $\text{H}$ , alkyl ( $\text{C}1\text{-C}10$ ), branched alkyl ( $\text{C}3\text{-C}10$ ), cycloalkyl ( $\text{C}3\text{-C}10$ ), cycloalkylalkyl ( $\text{C}4\text{-C}14$ ), acyl, alkyl thio, amino, alkyl amino, or dialkylamino, and  $\text{R9}$  also includes N-linked heterocycles such as piperidine, pyrrolidine, (1,2,3,4-)tetrahydrobetacarbolin-2yl,  $\text{R15}$  is  $\text{H}$ , alkyl ( $\text{C}1\text{-C}4$ ), branched alkyl ( $\text{C}3\text{-C}5$ ), or cycloalkyl( $\text{C}3\text{-C}5$ ), carbon-carbon single bonds in  $\text{R8}$  can optionally be substituted with double or triple bonds, and where  $\text{R3}$  can form a ring with  $\text{R2}$ ,  $\text{L1}$ , or  $\text{R4}$ , or  $\text{R3}$ ,  $\text{R9}$  and  $\text{R15}$  are further substituted with one or more of the following  $\text{NH}_2$ ,  $\text{OH}$ , halogen,  $\text{N}(\text{CH}_3)_2$ , alkyl,  $\text{CF}_3$ ,  $\text{CF}_3\text{O}$ ,  $\text{CF}_3\text{S}$ , alkoxy, alkylthio,  $\text{CONH}_2$ ,  $\text{CONHOH}$ ,  $\text{C}(\text{NH})\text{NH}_2$ ,  $\text{CN}$ ,  $\text{NO}_2$ ,  $\text{C}(\text{NH})\text{NHOH}$ ,  $\text{NHC}(\text{NH})\text{NH}_2$ , aryloxy, trifluoromethylphenoxy, carboxyalkyl ( $\text{C}2\text{-C}8$ ), (Carboxyphenyl)methylthio, carboxyalkylthio ( $\text{C}2\text{-C}8$ ), carboxyphenyl,  $\text{NR6R7}$  where  $\text{R6}$  and  $\text{R7}$  are  $\text{H}$  or alkyl or can form a ring;

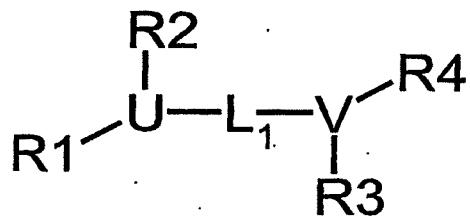
$\text{R4}$  is  $\text{H}$ , alkyl ( $\text{C}1\text{-C}10$ ), branched alkyl ( $\text{C}1\text{-C}10$ ), arylalkyl, heteroarylalkyl,  $\text{CONR10R16}$  where  $\text{R10}$  is  $\text{H}$ , methyl, alkyl ( $\text{C}2\text{-C}10$ ), branched alkyl ( $\text{C}3\text{-C}10$ ), benzyl, phenethyl, arylalkyl, heteroarylalkyl, alkanoyl ( $\text{C}2\text{-C}8$ ), branched alkanoyl, aroyl ( $\text{C}6\text{-C}12$ ), heteroaroyl ( $\text{C}2\text{-C}10$ ), isopropyl,  $\text{CONR16R12}$ ; and where  $\text{R12}$  and  $\text{R16}$  are, independently,  $\text{H}$ , methyl, alkyl, benzyl, 2-phenylethyl, 2-indanyl, 2-morpholinylethyl, (2,6)-dimethoxylbenzyl, dimethylaminoethyl, (2-pyridyl)methyl, 2-(2-pyridyl)ethyl, 4-carboxybenzyl, 1-phenylethyl,  $\text{CH}(\text{CONH}_2)\text{CH}_2\text{C}_6\text{H}_5$ ,  $\text{CH}(\text{CONH}_2)\text{CH}_2\text{CH}(\text{CH}_3)_2$ ,  $\text{CH}(\text{CONH}_2)\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$ ,  $\text{CH}(\text{CONH}_2)\text{CHCH}_3$ ,  $\text{CH}(\text{CH}_2\text{OCH}_3)\text{CH}_2\text{C}_6\text{H}_5$ ,  $\text{CH}(\text{CONHCH}_2\text{CH}_2\text{OCH}_3)\text{CH}_2$ cyclohexyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, aminoalkyl, hydroxyalkyl, (trifluoromethylphenoxy)phenyl.  $\text{NR16R12}$  can optionally form an N-linked monocyclic or bicyclic heterocyclic ring, including but not limited to 1,2-dihydroisoindole, octahydroisoindole, morpholine, piperidine, piperazine, N-alkyl piperazine ( $\text{C}1\text{-C}4$ ), homopiperazine, 3-pyrrolidine, pyrrolidine, tetrahydroisoquinoline, octahydropyrrolo[3,4-C]pyrrole, L-proline, L-proline dimethylamide, D-proline, D-proline dimethylamide, and thiazolidine, or

$\text{R4}$  can form a ring with  $\text{L1}$  or  $\text{R3}$ , and  $\text{R4}$ ,  $\text{R6}$ ,  $\text{R7}$ ,  $\text{R10}$ ,  $\text{R11}$ ,  $\text{R12}$  and  $\text{R16}$  can be further substituted, independently, with 1 to 3 of the following substitutents:  $\text{NH}_2$ ,  $\text{OH}$ ,  $\text{F}$ ,  $\text{Cl}$ ,  $\text{Br}$ , methyl, alkyl, aryl, cycloalkyl ( $\text{C}3\text{-C}6$ ), heterocycloalkyl, heteroaryl,  $\text{CF}_3$ ,

CF<sub>3</sub>O, CF<sub>3</sub>S, CF<sub>3</sub>, aryloxy, trifluoromethylphenoxy, alkoxy, alkylthio, CONH<sub>2</sub>, CN, NO<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, NR<sub>6</sub>R<sub>7</sub> where R<sub>6</sub> and R<sub>7</sub> are H or alkyl, or can form a ring; and

L1 is a linker including the following, in either orientation: single bond, double bond, CONH, NHCO, N(CH<sub>3</sub>)CO, CON(CH<sub>3</sub>), CH<sub>2</sub>NH, NHCH<sub>2</sub>, CH=CH,C(NH<sub>2</sub>)=N, N=C(NH<sub>2</sub>), arylene (linked 1,2-; 1,3-; or 1,4), heteroarylene (linked 1,2-; 1,3-; or 1,4), ethynyl, CH=CF, CF=CH, CF=CF, CH<sub>2</sub>CH<sub>2</sub>, C(CH<sub>3</sub>)=CH, CH=C(CH<sub>3</sub>), SO<sub>2</sub>NH, SO<sub>2</sub>, COCH<sub>2</sub>, CH<sub>2</sub>CO, CNOHCH<sub>2</sub>, CH<sub>2</sub>CNOH, C(CF<sub>3</sub>)=CH, CH=C(CF<sub>3</sub>), SO<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>SO<sub>2</sub>, SOCH<sub>2</sub>, CH<sub>2</sub>SO, CH<sub>2</sub>CHOH, CHOCH<sub>2</sub>, lower cycloalkyl (C3-C6), or CHOCHCHOH, or where L1 can be substituted with one or more of the following: NH<sub>2</sub>, OH, halogen, alkyl, CF<sub>3</sub>, CF<sub>3</sub>O, CF<sub>3</sub>S, alkoxy, alkylthio, CONH<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, NR<sub>6</sub>R<sub>7</sub> where R<sub>6</sub> and R<sub>7</sub> are H or alkyl and optionally form a ring.

2. (Original) A pharmaceutical composition useful for preventing or treating anthrax infections by inhibiting Anthrax Lethal Factor activity comprising  
a compound of the formula:



wherein U and V are, independently, C, N, or C(CH<sub>3</sub>), L1 is a linker and R1, R2, R3 and R4 are each independently selected substituent groups, as follows:

R1 is Z(CHR<sub>5</sub>)<sub>n</sub>Y where n is 0 to 4,

**Z** is a bond, S, CO, O, SO, SO<sub>2</sub>, NH, NR11, SO<sub>2</sub>NR11, NR11SO<sub>2</sub>, 1,2-phenylene, 1,3-phenylene, 1,4-phenylene, 1,2-cyclohexylidene;

**Y** is a group known to bind to zinc, including CONR11OH, COOH, SH, ArSH, NHCOCH<sub>2</sub>SH, 2-hydroxybenzoate (linked at the 3,4,5, or 6-position), 2-hydroxypyridinecarboxylate (linked at the 3,4,5, or 6-position, with the ring nitrogen at any unsubstituted position), CF<sub>3</sub>P=O(OH)<sub>2</sub>, C(CH<sub>3</sub>)=NOCH<sub>2</sub>COOH, C(CH<sub>2</sub>OH)=NOCH<sub>2</sub>COOH, NHCO(CHR11)<sub>m</sub>SH (where m = 1 to 4), PO(OH)<sub>2</sub>, PO(R11)OH, SO<sub>2</sub>NR11OH, or NH(OH)COR11, or is derivatized to form a prodrug that is capable of undergoing conversion to a zinc-binding moiety,

**R5** and **R11** are, independently, H, CH<sub>3</sub>, amino, hydroxy, alkoxy, alkylthio, alkyl (C2-C10), branched alkyl (C3-C10), alkylthio (C1-C7), alkylthioalkyl (C2-C8), arylthio, alkylamino(C1-C7), amino, arylamino, aryl, heteroaryl, arylalkyl, heterarylalkyl, arylalkenyl, heterarylalkenyl, arylalkynyl, or heterarylalkynyl,

and where **R1** can be further substituted with one or more of the following: NH<sub>2</sub>, OH, halogen, alkyl, CONH<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, CN, NO<sub>2</sub>, NR6R7 where **R6** and **R7** are H or alkyl and optionally form a ring, or **R5** can form a ring with **R2** or with **R11**;

**R2** is H, isobutyl, n-butyl, pentyl, methyl, alkyl (C1-C10), branched alkyl (C3-C10), cycloalkyl, cycloalkylmethyl (C3-C9 cycle), Ar(CH<sub>2</sub>)n (where n is 0 to 4, Ar is phenyl, aryl, heteroaryl), phenethyl, arylalkenyl, heterarylalkenyl, arylalkynyl, heterarylalkynyl, alkenyl (C2-C8), alkynyl (C2-C8), pentafluorophenoxyethyl, pentafluorophenylmethyl, cycloalkenyl (C4-C10), alkylthio, arylthio, alkylamino, arylamino, aryl, dichlorophenyl, or **R2** can form a ring with **R5**, **R11**, **L1**, or **R3**, and **R2**, **R5** and **R11** can be substituted with one or more of the following: NH<sub>2</sub>, OH, halogen, alkyl, CF<sub>3</sub>, CF<sub>3</sub>O, CF<sub>3</sub>S, alkoxy, alkylthio, SO<sub>2</sub>alkyl (C1-C4), CONH<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, CN, NO<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, or NR6R7 where **R6** and **R7** are H or alkyl and can form a ring;

**R3** is H, phenethyl, alkyl (C1-C10), branched alkyl (C1-C10), aryl, phenyl substituted with aryl or heteroaryl at the 2-, 3-, or 4-positions, benzyloxy, pyrrolyl substituted with 1-2 aryl groups, 2-aryl-1,3,4 thiadiazolyl, heteroaryl (including thiophenyl), -L2Ar where Ar includes 1-naphthyl, 2-naphthyl, 4-phenylphenyl, 5-(2-thienyl)-2-thienyl, 4-(3'-methoxyphenyl)phenyl, 4-(4'-methoxyphenyl)phenyl, 3-indolyl, phenyl, t-butyl, indolyl 3-phenylphenyl, indolyl, 2,3-dimethyl-5-indolyl, benzothiophenyl, 4-(1,2,3-thiadiazol-4-yl)phenyl, 4-(2-thienyl)phenyl, 5-(2-pyridyl)-2-thienyl, 1-(2-naphthyl)vinylaminoalkyl, N-hydroxybenzamidin-4-yl, 2-methylcarbazol-3-yl, 2-ethylcarbazol-3-yl, aryl or heteroaryl and L2 is a linker chosen from the following, in both orientations: bond, CH<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>, CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CONHCH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CONHCH<sub>2</sub>CH<sub>2</sub>, 1,1 vinylidene, 1,2-vinylidene, CO, CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>, CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>, (CH<sub>2</sub>)<sub>q</sub> where q = 3 to 7, (CHR9)<sub>r</sub> where r = 1 to 7 and R9 is independently H, alkyl (C1-C10), branched alkyl (C3-C10), cycloalkyl (C3-C10), cycloalkylalkyl (C4-C14), alkyl thio, amino, alkyl amino, dialkylamino, (CHR9)<sub>s</sub>X(CHR9)<sub>t</sub> where s + t = 0 to 8, X is O, S, CO, SO, SO<sub>2</sub>, NH, CONH, NHCO, SO<sub>2</sub>NH, NSO<sub>2</sub> or NR9 and R9 is independently H, alkyl (C1-C10), branched alkyl (C3-C10), cycloalkyl (C3-C10), cycloalkylalkyl (C4-C14), acyl, alkyl thio, amino, alkyl amino, or dialkylamino, and R9 also includes N-linked heterocycles such as piperidine, pyrrolidine, (1,2,3,4-)tetrahydrobetacarbolin-2yl, R15 is H, alkyl (C1-C4), branched alkyl (C3-C5), or cycloalkyl(C3-C5), carbon-carbon single bonds in R8 can optionally be substituted with double or triple bonds, and where R3 can form a ring with R2, L1, or R4, or R3, R9 and R15 are further substituted with one or more of the following NH<sub>2</sub>, OH, halogen, N(CH<sub>3</sub>)<sub>2</sub>, alkyl, CF<sub>3</sub>, CF<sub>3</sub>O, CF<sub>3</sub>S, alkoxy, alkylthio, CONH<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, CN, NO<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, aryloxy, trifluoromethylphenyloxy, carboxyalkyl (C2-C8), (Carboxyphenyl)methylthio, carboxyalkylthio (C2-C8), carboxyphenyl, NR6R7 where R6 and R7 are H or alkyl or can form a ring;

**R4** is H, alkyl (C1-C10), branched alkyl (C1-C10), arylalkyl, heteroarylkyl, CONR10R16 where R10 is H, methyl, alkyl (C2-C10), branched alkyl (C3-C10), benzyl, phenethyl, arylalkyl, heteroarylkyl, alkanoyl (C2-C8), branched alkanoyl, aroyl (C6-

C12), heteroaroyl (C2-C10), isopropyl, CONR16R12; and where R12 and R16 are, independently, H, methyl, alkyl, benzyl, 2-phenylethyl, 2-indanyl, 2-morpholinylethyl, (2,6)-dimethoxylbenzyl, dimethylaminoethyl, (2-pyridyl)methyl, 2-(2-pyridyl)ethyl, 4-carboxybenzyl, 1-phenylethyl, CH<sub>2</sub>(CONH<sub>2</sub>)CH<sub>2</sub>C<sub>6</sub>H<sub>5</sub>, CH<sub>2</sub>(CONH<sub>2</sub>)CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>(CONH<sub>2</sub>)CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>, CH<sub>2</sub>(CONH<sub>2</sub>)CHCH<sub>3</sub>, CH<sub>2</sub>(CH<sub>2</sub>OCH<sub>3</sub>)CH<sub>2</sub>C<sub>6</sub>H<sub>5</sub>, CH<sub>2</sub>(CONHCH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub>)CH<sub>2</sub>cyclohexyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, aminoalkyl, hydroxyalkyl, (trifluoromethylphenoxy)phenyl. NR16R12 can optionally form an N-linked monocyclic or bicyclic heterocyclic ring, including but not limited to 1,2-dihydroisoindole, octahydroisoindole, morpholine, piperidine, piperazine, N-alkyl piperazine (C1-C4), homopiperazine, 3-pyrroline, pyrrolidine, tetrahydroisoquinoline, octahydronyrro[3,4-C]pyrrole, L-proline, L-proline dimethylamide, D-proline, D-proline dimethylamide, and thiazolidine, or

R4 can form a ring with L1 or R3, and R4, R6, R7, R10, R11, R12 and R16 can be further substituted, independently, with 1 to 3 of the following substitutents: NH<sub>2</sub>, OH, F, Cl, Br, methyl, alkyl, aryl, cycloalkyl (C3-C6), heterocycloalkyl, heteroaryl, CF<sub>3</sub>, CF<sub>3</sub>O, CF<sub>3</sub>S, CF<sub>3</sub>, aryloxy, trifluoromethylphenoxy, alkoxy, alkylthio, CONH<sub>2</sub>, CN, NO<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, NR6R7 where R6 and R7 are H or alkyl, or can form a ring; and

L1 is a linker including the following, in either orientation: single bond, double bond, CONH, NHCO, N(CH<sub>3</sub>)CO, CON(CH<sub>3</sub>), CH<sub>2</sub>NH, NHCH<sub>2</sub>, CH=CH, C(NH<sub>2</sub>)=N, N=C(NH<sub>2</sub>), arylene (linked 1,2-; 1,3-; or 1,4), heteroarylene (linked 1,2-; 1,3-; or 1,4), ethynyl, CH=CF, CF=CH, CF=CF, CH<sub>2</sub>CH<sub>2</sub>, C(CH<sub>3</sub>)=CH, CH=C(CH<sub>3</sub>), SO<sub>2</sub>NH, SO<sub>2</sub>, COCH<sub>2</sub>, CH<sub>2</sub>CO, CNOHCH<sub>2</sub>, CH<sub>2</sub>CNOH, C(CF<sub>3</sub>)=CH, CH=C(CF<sub>3</sub>), SO<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>SO<sub>2</sub>, SOCH<sub>2</sub>, CH<sub>2</sub>SO, CH<sub>2</sub>CHOH, CHOCH<sub>2</sub>, lower cycloalkyl (C3-C6), or CHOHCHOH, or where L1 can be substituted with one or more of the following: NH<sub>2</sub>, OH, halogen, alkyl, CF<sub>3</sub>, CF<sub>3</sub>O, CF<sub>3</sub>S, alkoxy, alkylthio, CONH<sub>2</sub>, CONHOH, C(NH)NH<sub>2</sub>, C(NH)NHOH, NHC(NH)NH<sub>2</sub>, NR6R7 where R6 and R7 are H or alkyl and optionally form a ring, together with a pharmaceutically acceptable carrier.